



Summary of Fishery Surveys Sailor Creek Flowage, Price County, 2010

WDNR's Fisheries Management Team from Park Falls completed fyke netting and electrofishing surveys in 2010 to assess the status of important fish populations in Sailor Creek Flowage. Fyke nets set shortly after spring thaw targeted northern pike. An electrofishing survey in May documented the abundance and size structure of largemouth bass and bluegill populations. Quality, preferred, and memorable sizes referenced in this summary are based on standard proportions of world record lengths developed for each species by the American Fisheries Society. "Keeper size" is based on known angler behavior.

Survey Effort

On April 11 we set 4 fyke nets overnight for one night when the water temperature was at 52°F. This was too warm and we missed the peak northern pike spawning activity. With water temperature at 66°F, our May 17 electrofishing survey was well-timed to represent the relative abundance and size structure of largemouth bass and bluegill populations that were either spawning (bass) or preparing to spawn (bluegill). We sampled 2.05 miles of shoreline in 1.18 hours with 0.50 mile sub-sampled for panfish in 0.33 hour.

Habitat Characteristics

Sailor Creek Flowage is a 201-acre impoundment on Sailor Creek located about 5 miles south of Fifield, WI. It has a maximum depth of 8 feet and an average depth of 3 feet. The water is moderately stained (secchi depth=3feet), and substrate is made up of 20% sand, 35% gravel, 5% rock, and 40% muck. Shoreland vegetation is 75% upland hardwoods and pine and 25% lowland swamp containing tag alder, willow and cattail. Aquatic invasive species include Chinese mystery snails and purple loosestrife. Price County maintains a public boat landing near the dam on the west end of the lake.

Summary of Results

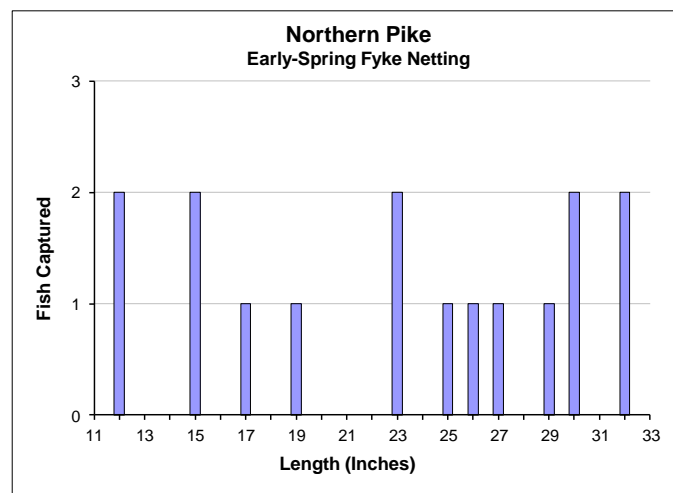
We captured ten fish species in our netting and electrofishing surveys. Northern pike and largemouth bass were the principle predators. Crappie and bluegill were the main panfish species observed. Golden shiners, white suckers, and silver redhorse also complemented the forage base. We also observed numerous black and yellow bullheads.

Northern Pike



Early Spring Fyke Nets

Captured 3.5 per net-night $\geq 14"$	
Quality Size $\geq 21"$	71%
Preferred Size $\geq 28"$	36%
Memorable Size $\geq 34"$	0%



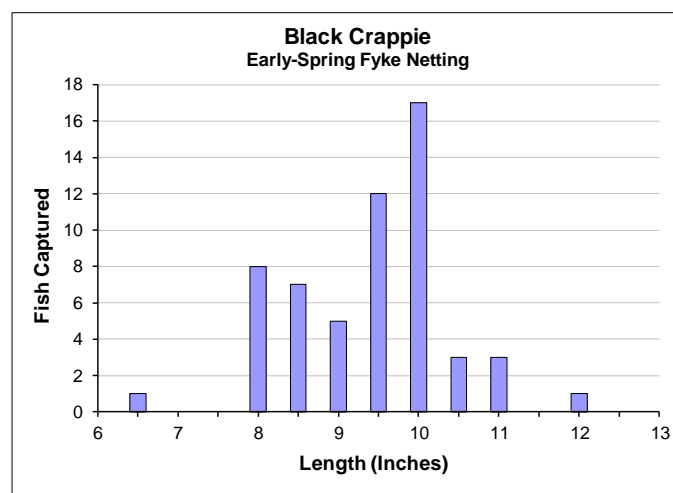
Northern pike catch rates in early spring fyke nets suggested a moderate adult abundance with above-average size structure. With yellow perch absent from our samples, the high proportion of pike in the preferred size range may be attributable to an alternative forage base of golden shiners, white suckers, and redhorse, that also have the cylindrical body shape that pike prefer to eat.

Black Crappie



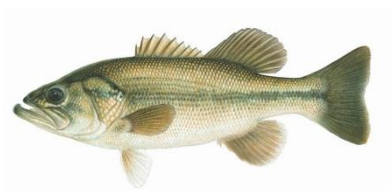
Early Spring Fyke Nets

Captured 14 per net-night $\geq 5"$	
Quality Size $\geq 8"$	98%
Preferred Size $\geq 10"$	42%
Memorable Size $\geq 12"$	2%



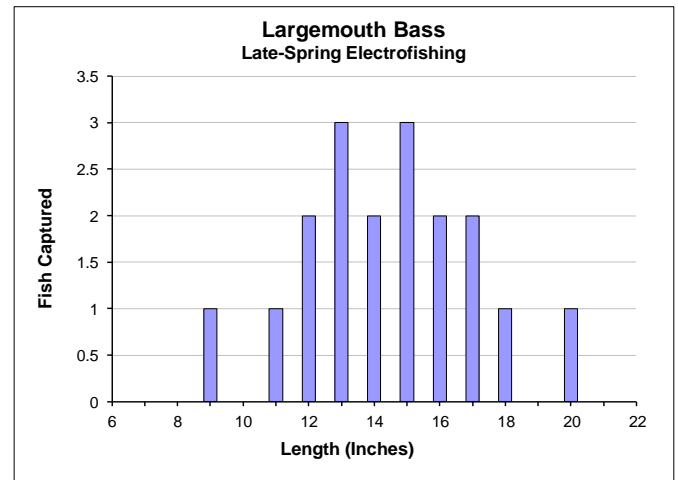
We captured adult black crappie at a moderate rate with a high proportion of quality- and preferred-size fish. During this early time period, fyke nets can disproportionately represent the larger, mature crappies that are staging to spawn.

Largemouth Bass



Late Spring Electrofishing

Captured 8.8 per mile or 15 per hour $\geq 8"$	
Quality Size $\geq 12"$	89%
Preferred Size $\geq 15"$	50%
Memorable Size $\geq 20"$	6%



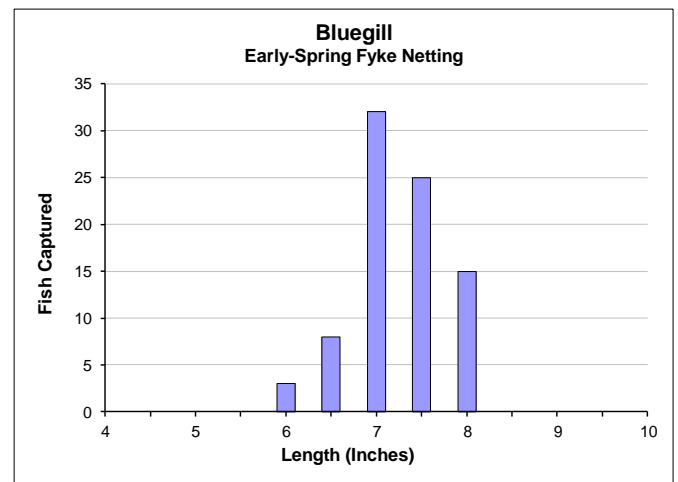
The late-spring electrofishing survey revealed a largemouth bass population in low to moderate abundance with a high proportion of preferred-size fish. Despite their moderate density, largemouth bass in this system seem to be keeping the bluegill population in check, allowing surviving bluegills to grow to preferred size. This is a rare combination in Northern Region lakes of this size where panfish control typically requires a high abundance of 9- to 13-inch largemouth bass. Habitat is favorable for largemouth bass in Sailor Creek Flowage with its abundance of vegetation and woody structure.

Bluegill



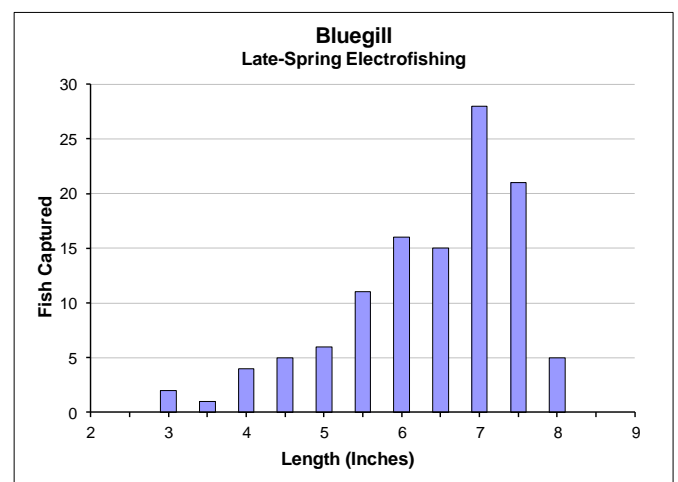
Early Spring Fyke Nets

Captured 21 per net-night $\geq 3"$	
Quality Size $\geq 6"$	100%
Keeper Size $\geq 7"$	87%
Preferred Size $\geq 8"$	18%



Late Spring Electrofishing

Captured 215 per mile or 345 per hour $\geq 3"$	
Quality Size $\geq 6"$	75%
Keeper Size $\geq 7"$	47%
Preferred Size $\geq 8"$	4%



Despite relatively high capture rate, the satisfactory length distribution of bluegills in both surveys suggests that largemouth bass eat enough young bluegills to maintain moderate abundance and satisfactory size structure in the bluegill population. High fishing pressure observed on Sailor Creek Flowage in the winter and early spring probably results in selective harvest of bluegills over 8 inches long. Without a sample of aged fish, it was not possible to determine bluegill growth rate; but with excellent habitat and sufficient predation by bass, conditions overall are good for producing keeper-size bluegills.

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